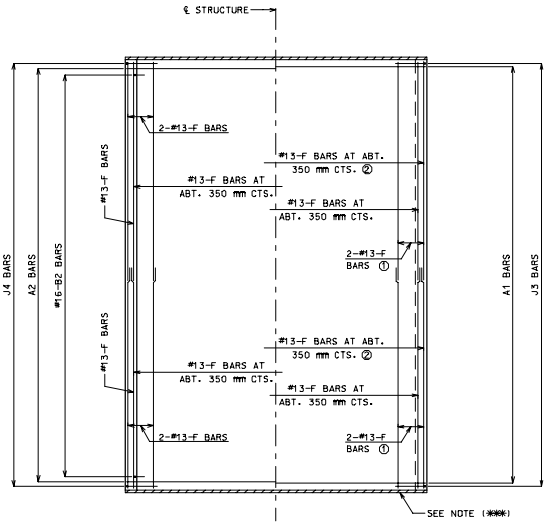
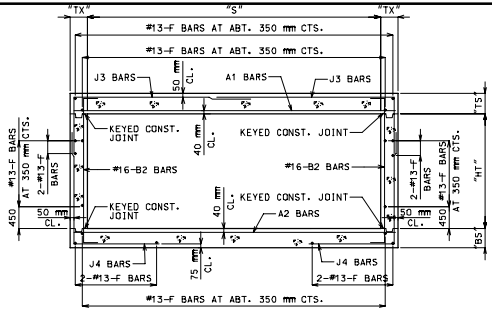
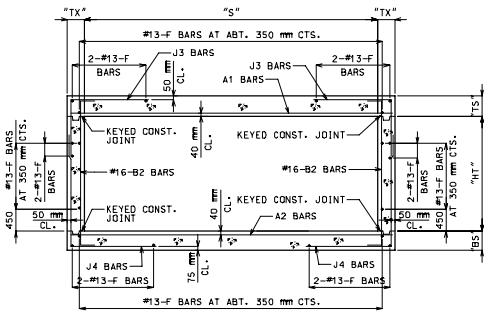


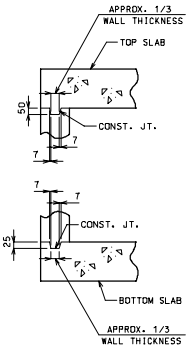
HALF HORIZONTAL SECTION HALF PLAN



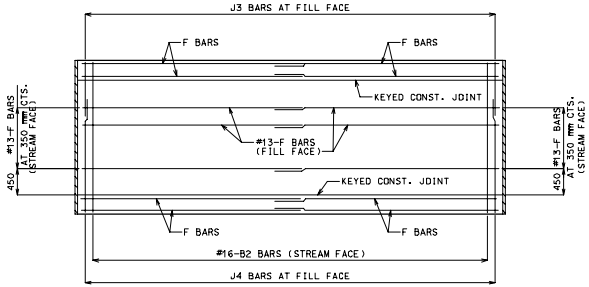
SECTION THRU BOX (DESIGN FILLS 610 mm OR LESS)



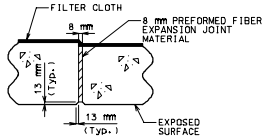
SECTION THRU BOX (DESIGN FILLS OVER 610 mm)



DETAIL OF KEYED CONST. JT.



ELEVATION OF WALL



DETAIL OF TRANSVERSE JOINT THRU BARREL OF CULVERT

① USE THESE BARS FOR DESIGN FILLS OF MORE THAN 610 mm.

② USE THESE BARS FOR DESIGN FILLS OF 610 mm OR LESS.

(***) USE TRANSVERSE JOINT WHEN BARREL IS OVER 25 METERS LONG BETWEEN HEADWALLS MEASURED ALONG ℄ OF BOX.

USE ADDITIONAL TRANSVERSE JOINTS TO PROVIDE 15 METERS MAXIMUM SPACING BETWEEN JOINTS.

GENERAL NOTES:

DESIGN UNIT STRESSES:
CLASS B-1 CONCRETE, f'c = 28 MPa
REINFORCING STEEL (GRADE 420). fy = 420 MPa

ALL DIMENSIONS SHOWN ARE IN mm UNLESS OTHERWISE NOTED.

FOR DIMENSIONS AND SIZE AND SPACING OF REINFORCING STEEL, SEE STANDARD SHEET M703.15.

LAP ALL LONGITUDINAL BARS A MINIMUM OF 610 mm AT SPLICES.

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 40 mm UNLESS OTHERWISE SHOWN.

PREFORMED FIBER EXPANSION JOINT MATERIAL SHALL BE SECURELY STITCHED TO ONE FACE OF THE CONCRETE WITH 3.5 mm DIA. (10 GAGE) COPPER WIRE OR 2.8 mm DIA. (12 GAGE) SOFT DRAWN GALVANIZED STEEL WIRE.

A FILTER CLOTH 1 METER IN WIDTH AND DOUBLE THICKNESS SHALL BE APPLIED TO ALL TRANSVERSE JOINTS IN THE TOP SLAB AND SIDEWALLS. THE MATERIAL SHALL BE CENTERED ON THE JOINT AND THE EDGES SEALED WITH A MASTIC OR WITH TWO SIDED TAPE. THE FILTER CLOTH SHALL BE A GEOTEXTILE MEETING THE APPROVAL OF THE ENGINEER AND HAVING A GRAB TENSILE STRENGTH OF 800 N. (ASTM D-4632) AND AN APPARENT OPENING SIZE OF 300 TO 150 MICROMETERS (ASTM D-4751). COST OF FURNISHING AND INSTALLING THE FILTER CLOTH WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR OTHER ITEMS.

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

CONCRETE
SINGLE BOX STRUCTURE

(CUT SECTIONS)

DATE: _____ EFFECTIVE: 07-01-2004 M703.12F 1/1